Alliance for Coastal Technologies (ACT)

Region: National
Date Initiated: May 2000
(current number: NA16OC2473, initiated May 2006)

Brief Project Summary

The Alliance for Coastal Technologies (ACT) is a partnership of research institutions, resource managers, and private-sector companies dedicated to fostering the development and adoption of effective and reliable sensors and platforms for studying and monitoring coastal environments. ACT priorities include transitioning emerging technologies to operational use rapidly and effectively; maintaining a dialogue among technology users, developers, and providers; identifying technology needs and novel technologies; and documenting technology performance and potential. ACT is a mature program with eight partner institutions geographically distributed around the coastal U.S. and with community recognition and buy-in.

IOOS

This project is contributing to the Integrated Ocean Observing System (IOOS) by

- Providing the information required for the deployment of reliable and cost-effective networks
- Performing unbiased evaluations of ocean-observing sensor and sensor-platform technologies
- Facilitating communication among management, research-science, and private-sector communities through workshops, needs assessments, and the development of a coastal observing technologies database

Key Accomplishments

Testing and Evaluation

- ACT has established an unbiased, third-party testbed for evaluating existing, new, and developing sensor and sensor-platform technologies. To date, 18 individual in situ instruments have been or are in the process of being evaluated as part of ACT dissolved oxygen sensor, fluorometer, and turbidity sensor performance verifications. All verification statements are made available to the public through the ACT Web site.

Capacity Building

- ACT has established a forum for capacity building through workshops on specific technology themes. To date, 28 individual workshops have been held to engage the management, research-science, and private-sector communities in summarizing the state of the subject technology and to make recommendations for future development and applications. These workshops also help set the stage for future "follow through" actions by ACT, including identifying candidate technologies for technology evaluation activities; brokering partnerships of technology developers with public and private research and development funding sources; networking technology suppliers with technology users; and prompting follow-up training opportunities for "operational managers" of monitoring and observing programs. All workshop reports are made available to the public through the ACT Web site.

- ACT has established as a customer-driven, searchable database that compiles and inventories information on coastal observing technologies and company information worldwide. The on-line database was created to allow technology providers and users to match needs in a virtual "marketplace" environment. Additional information on each technology is provided to facilitate informed decision making on technology selection and application among the wide range of available options. Recently, the database has been expanded significantly to include approximately 1,000 instruments, records, and corresponding links to over 400 marine technology companies.

(*over*)

- ACT has organized and held a prototype Technology Training Workshop on dissolved oxygen sensors. The effective selection and utilization of coastal observing technologies requires a thorough understanding of how the technologies function and how to routinely collect sound reliable data, especially when new instrumentation is introduced. Through these workshops, ACT has begun to explore ways to provide the sensor information that operational managers and marine technology professionals need to operate and maintain coastal ocean observing systems to sustain IOOS.

Needs Assessment

- ACT has completed three technology-specific customer needs and use assessments. The assessments provide valuable quantitative information for the broader coastal communities on current applications of specific technologies, what users perceive as advantages and limitations of the technology, and what technology users suggest for improvement. Results are also used to identify priority parameters and applications for ACT technology evaluations, to define the focus and critical questions for ACT sensor technology workshops, and to supplement specific ACT workshop conclusions and recommendations. All customer needs and use assessments are made available to the public through the ACT Web site.

- ACT technology evaluations and workshop findings and reports have resulted in funding initiatives. For example, programs such as the National Oceanic and Atmospheric Administration (NOAA) Small Business Innovation Research (SBIR) program, the National Ocean Partnership Program (NOPP), and the NOAA/ University of New Hampshire Cooperative Institute for Coastal and Estuarine Environmental Technology (CICEET) have all released public requests for proposals based directly on technology-specific needs, conclusions, and recommendations identified through one or more ACT activities.

Primary Contact

Dr. Mario N. Tamburri
Executive Director, Alliance for Coastal Technologies
Research Associate Professor, Chesapeake Biological Laboratory
University of Maryland Center for Environmental Science
PO Box 38 / One Williams Street
Solomons, Maryland 20688
Phone: (410) 326-7440; Fax: (410) 326-7428
E-mail: *tamburri@cbl.umces.edu*

Project Web Site

www.act-us.info